

Notice of Allowability**Application No.**

10/532,401

Applicant(s)

REIMANN ET AL.

Examiner

MICHAEL M. BERNSTEYN

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/17/2008.
2. ☒ The allowed claim(s) is/are 1,4-13,17,21 and 22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20090122.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

DETAILED ACTION

1. This Office Action is a response to the remarks filed November 17, 2008. Claims 1, 9, and 17 have been amended; claims 2, 14-16, and 18-20 have been cancelled; no claims have been added.
2. In view of the amendment(s) and remarks, the rejection of claim 1 under 35 U.S.C. 112, 1st paragraph; the rejection of claims 9 and 17 under 35 U.S.C. 112, 2nd paragraph; the rejection of claims 1 and 17 under 35 U.S.C. 102(b) as being anticipated by Gartner et al. (U. S. Patent 6,323,252), and the rejection of claims 1 and 17 under 35 U.S.C. 102(b) as being anticipated by Fujiura et al. (U. S. Patent 5,002,986) have been withdrawn.
3. Claims 1, 3-13, 17, 21 and 22 are now pending.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Philip P. McCann (Reg. No. 30,919) on January 22, 2009.

5. Claim 3 has been cancelled.

Claim 1, line 1: after the word "polymer" insert – composition--.

Claim 1, the last line: after the words "this flow" insert --, wherein the ratio of the opposed flow to the flow of newly entering polymer particles averages about 5 to about 50 % by wt. --.

Claim 17, line 1: after the word "wherein" delete the word "an" and insert --the--;

Claim 17, line 2: after the word "polymer" insert --composition--.

Allowable Subject Matter

6. Claims 1, 4-13, 17, 21 and 22 are allowed.
7. The following is examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Gartner et al. (U. S. Patent 6,323,252) and Fujiura et al. (U. S. Patent 5,002,986).

Gartner exemplifies a process in which a superabsorbent polymer (ethoxylated trimethylolpropane triacrylate) in water: (i) is stirred with a high-speed rotor in a mixer for 2 minutes in a first mixing step, and (ii) is further stirred in a low-speed mixer for 20 minutes in a second mixing step (col. 10, line 57 through col. 11, line 20, Examples 7 through 9 of Experimental Procedure I). Aluminium trichloride was added to the polymer prior to the above mixing process. The superabsorbent polymer obtained is used, for example, in diapers. Post-crosslinking of this polymer is described in examples 27 to 30 (col. 15, line 30 through col. 16, line 25).

Furthermore, any mixing operation with a mixer, including that described in the continuous mixing processes of Experimental Procedures 2 and 4 of Gartner, involves

the mixer being switched off. This necessarily means that the mixer cuts its mixing speed from a maximum mixing speed, corresponding to the first mixing step of the present application, to zero, corresponding to the second mixing step of the present application.

Gartner discloses that in a preferred embodiment for making polymers, an aqueous solution of the α,β -ethylenically unsaturated monomer in the partially neutralized form, the cross-linking agent, the initiator and a grafting polymer substrate is prepared (col. 6, lines 63-67). Another embodiment comprises contacting the saline additive solution containing surface treatment additives before the heat-treatment. In order to achieve a more homogeneous distribution of cross-linkers or other surface treatment additives, the presence of additives like salt in the coating solution supports the more homogeneous distribution of the surface treatment additives on the surface of the superabsorbent polymer particles (col. 8, lines 22-29).

Fujiura discloses a process wherein a super absorbent polymer in water and aluminium sulphate is stirred at 12000 rpm, corresponding to the first stirring step claimed, and the stirrer is then turned off. When the stirrer is turned off, it will cut its speed from 12000 rpm to 0 rpm and will thus pass through a lower-speed stirring phase corresponding to the second stirring step claimed (col. 8, line 41 through col. 9, line 15, example 1).

Fujiura discloses that the absorbent article can comprise an intimate admixture of hydrophillic material and the fluid absorbent polymer compositions with the absorbent polymer being distributed essentially uniformly throughout the hydrophillic material.

Alternately, the fluid absorbent polymer compositions can be dispersed into at least one or more layers between the hydrophillic material. Another alternative can be to form a laminate by over-wrapping the fluid absorbent polymer compositions with sheets of hydrophillic material such as tissue paper, if desired (col. 15, lines 15-26). Additives which find use in improving the absorbency rate of the composition are fumed silica, aluminum hydroxide, titanium oxide, swellable clay, etc. (col. 8, lines 32-35).

However, Gartner et al. and Fujiura et al. do not disclose or fairly suggest the limitation of newly amended claim 1, wherein in the first mixing event the polymer particles are back-mixed in such a way that a flow of the new polymer particles entering in the mixer is overlaid by a flow of polymer particles already present in the mixer and opposed to this flow, wherein the ratio of the opposed flow to the flow of newly entering polymer particles averages about 5 to about 50% by wt.

8. As of the date of this Notice of Allowability, the Examiner has not located or identified any reference that can be used singularly or in combination with another references including Gartner et al. and Fujiura et al. to render the present invention anticipated or obvious to one of ordinary skill in the art.

9. In the light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delay, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/
Primary Examiner, Art Unit 1796

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

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Examiner, Art Unit 1796

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